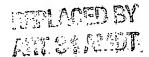
Claims

- 1. Use of a hyperpolarised solid or solution of a high T1 agent having a T1 value of at least 5 seconds at a field strength of 0.001-5 T and a temperature of 20-40 °C for the manufacture of a MR contrast medium for use in a method of diagnosis, surgery or therapy wherein an invasive device is inserted into a human or non human animal body and an MR image of at least a part of said body containing said device is generated to visualise said device.
- 2. Use as claimed in claim 1 wherein said high T1 agent comprises nuclei with non-zero spin nuclei, preferably nuclei selected from the group consisting of ¹⁹F, ⁶Li, ¹³C, ¹⁵N, ²⁹Si and ³¹P, particularly preferably nuclei selected from the group consisting of ¹³C, ¹⁵N, ¹⁹F, ²⁹Si and ³¹P nuclei and most preferably nuclei selected from the group consisting of ¹³C and ¹⁵N nuclei.
- 3. Use as claimed in claim 1 wherein said high T1 agent comprises the nuclei selected from the group consisting of ⁷⁷Se, ¹¹¹Cd, ¹¹³Cd, ¹¹⁵Sn, ¹¹⁷Sn, ¹¹⁹Sn, ¹²³Te, ¹²⁵Te, ¹⁷¹Yb, ¹⁹⁵Pt, ¹⁹⁹Hg, ²⁰³Tl, ²⁰⁵Tl and ²⁰⁷Pb.
- 4. Use as claimed in claims 1 to 3 wherein said high T1 agent have a T1 value of at least 10 seconds or more, preferably 30 seconds or more, more preferably 60 seconds or more and most preferably of more than 100 seconds at a field strength of 0.001-5 T and a temperature of 20-40 °C.
- 5. Use as claimed in any of claims 1 to 4 wherein the invasive device contains a cavity for holding the contrast medium, the cavity preferably fitted with an outside duct for facilitating circulation and addition of contrast medium.
- 6. Use as claimed in any of claims 1 to 5 wherein said invasive device is made from a medium conductive material containing carbon fibre.



- Use as claimed in any of the preceding claims wherein the invasive device is inserted into a tissue and/or vasculature of the human or non-human animal body.
- 8. Use as claimed in any of the preceding claims wherein the contrast medium additionally is a therapeutically active medium.
- 9. Use as claimed in claim 8 where the therapeutic active medium is instilled at the region of interest via the invasive device.
- 10. Use as claimed in any of the preceding claims wherein the method is a method of examining and optionally operating the fallopian tubes.
- 11. Use as claimed in any of claims 1 to 9 wherein the method is a method for diagnosis and optional surgery on tumours.
- 12. Use as claimed in any of claims 1 to 9 wherein the method is a method for diagnosis by biopsy, preferably breast or prostate biopsy.
- 13. Use as claimed in any of claims 1 to 8 wherein the method is an ablation procedure where an additional compound effective in this ablation procedure is introduced through the invasive device.
- 14. A method of facilitating the visualisation of an invasive device in a human or non-human animal body comprising inserting the invasive device into said body, generating an MR-image of at least a part of said body containing said device and introducing a contrast medium into and optionally through said device during the time course of the visualisation procedure, characterised in that the contrast medium comprises a hyperpolarised solid or solution of a high T1 agent having a T1 value of at least 5 seconds at a field strength of 0.001-5 T



and at a temperature of 20-40 °C.

- 15. Invasive device, for use with the contrast medium and in the methods of the preceding claims comprising a hollow elongated body made from carbon fibre containing material.
- 16. Invasive device according to claim 15 characterised in that the hollow elongated body is opaque to radio frequency radiation.
- 17. Invasive device according to claim 15 characterised in that the hollow elongated body is made of carbon-fibre composite material
- 18. Invasive device for use with the contrast medium and in the method of claims 1 to 14 comprising a hollow elongated body with a first end and a second end, a first lumen extending from said first end to said second end and a second lumen extending from said first end to said second end, characterised in that said first lumen is in communication with said second lumen near to said second end.
- 19. Invasive device according to claim 18 characterised in that it comprises more than 2 lumens.
- 20. Invasive device according to claims 18 and 19 characterised in that the hollow elongated body is opaque to radio frequency radiation.

